DOCUMENT RESUME

ED 026 356 TE 000 902

By-Nemanich, Donald

The Syntax of Children's Writing.

Pub Date [67]
Note-10p
EDRS Price MF-$0.25 HC-$0.60
Descriptors-*Composition (Literary), Composition Skills (Literary), Curriculum Evaluation, Educational Research, *Elementary School Students, English Instruction, Evaluation Techniques, Intelligence, Language Patterns, Linguistics, *Measurement, Measurement Techniques, Sentences, *Syntax, Writing, *Writing Skills
Identifiers-*Nebraska English Curriculum

This University of Nebraska study proposed to discover (1) the types of changes occurring in syntax as children mature, (2) the age at which children begin to use certain structures in their writing, (3) the differences in syntax between children's and adult's writing, (4) the relationship between syntactic patterns and intellectual ability, and (5) the differences between the syntax of children studying the Nebraska English Curriculum materials and that of children in traditional language arts programs. A multi-level instrument of syntactic analysis, similar on the first level to the Strickland instrument, was developed and used over a 3-year period to analyze the writing of over 13,000 sentences from 2,000 compositions. Results indicated that children move steadily toward the syntactic model of the adult writer as they grow older; that a statistically significant difference is evident between high, middle, and low I.Q. groups in their use of a variety of syntactic structures; and that children in programs using the Nebraska Project English curriculum progress toward the adult model more rapidly than do children in traditional programs. (This document summarizes material reported in "The Nebraska Study of the Syntax of Children's Writing," 3 vols., The Univ. of Nebraska, 1967. See ED 013 814, ED 013 815, and ED 013 816.) (JS)

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

ED026356

The Syntax of Children's Writing

by

Donald Nemanich

The Nebraska Syntax Study[1] came into existence because we felt a need to know much more than we did about how children learn to write. Although there have been several good recent studies of children's oral language, especially Ruth Strickland's THE LANGUAGE OF ELEMENTARY SCHOOL CHILDREN and Walter Loban's THE LANGUAGE OF ELEMENTARY SCHOOL CHILDREN, there have been few significant studies of the written language of children. The Nebraska Syntax Study was conceived as a partial attempt to fill the void.

It was hoped that the Nebraska study could provide answers to such questions as these: 1) How does the syntax of children's writing change as they mature? 2) At what age do children begin to use various structures in their writing? 3) How does the syntax of children differ from that of adults? 4) What is the relationship between the child's use of the various syntactic patterns and his intellectual ability? and 5) Is there any difference between the syntax of children in classrooms using the Nebraska English Curriculum and children in traditional language arts programs?

A three-year study of the syntax of children's compositions to find answers to these questions was begun under the aegis of the Nebraska Curriculum Development Center and was made possible by a grant from the Hill Family Foundation of Minneapolis.

---

1 "The Nebraska Study of the Syntax of Children's Writing," mimeographed, 3 volumes, The University of Nebraska, 1967.

The staff for the study included: Dr. Eldonna Evertts of the University of Illinois and the N.C.T.E., Donald Nemanich of Florida State University, Dr. Sam Sebesta of the University of Washington, and Dr. Nell Thompson of Western Washington State College.

During the first year of the study the staff and consulting linguists developed an instrument of syntactic analysis to be used in the analysis, description, and classification of syntactic structures in the writing of children. Although the present study was concerned only with children's written language, it was believed desirable to have an instrument similar in grammatical presupposition and notational system to that used in the Strickland study of children's oral language. However, it was felt that, on the basis of the experience of the Strickland study, a somewhat more refined and complex instrument might better fit our needs. It was felt that the system had to be simple enough to permit rapid, immediate inspection analysis of a large number of children's sentences. Hence, in part, the reticence to use a transformational schematum. Out of this pragmatic calculus, the present instrument emerged.

Although the system is a multi-level one in contrast with Strickland's two-level schematum, the system does parallel Strickland's on the first level. For example, at level one, the noun and verb slots are identified by symbols quite similar to those used in the Strickland study, and other sentence-level slots are also identified in fashions similar to those of the Strickland study. In this study, as in Strickland's, the symbols 1 2 4 represent a sentence or clause which has the subject-verb-object pattern. However, deviations from Strickland's design do appear in the level one analysis, especially in the treatment of adverbial slots. In the Strickland study, adverbials are identified by notional criteria; there are, for example, adverbials of place, time, manner, etc. In contrast, in the present study, adverbials are identified

according to position in the clause rather than notional type; and, in addition, a distinction is made between those adverbials which are fixed and those which are movable--a classification which contrasts with the Strickland study in which all adverbials are called movable, regardless of their degree of movability.

The system for analyzing levels beyond the first differs more radically from Strickland's; the Strickland instrument of analysis permits only two levels, whereas the instrument used in the Nebraska study permits as many levels as are needed to describe the structures used. In the Strickland study the constituents of any slots are simply identified as nuclei and satellites, or heads and modifiers; the present system of analysis identifies more precisely the constituents of the slots. This is not to denigrate the Strickland notation, but to admit that the present study benefited from the findings of her study and others. From the experience of other researchers it was learned that a somewhat more complex instrument would reveal more of the subtleties of language used by writers. In an article in Elementary English Mayer found the research scheme of Strickland's level II analysis to be "impossibly under-differentiating."[2] He contended that the Strickland study obscured what may be important details by lumping together the most complex constructions with the simplest ones.

In the notational system of the present study, the constituents of slots are described as fully and specifically as possible by appropriate grammatical terminology: e.g., the subject of a sentence is not identified merely as a nucleus preceded by satellites, but rather is described as a noun preceded by a determiner, adjective, possessive noun or pronoun, or attributive

---

[2] Edgar Mayer, "Research Critiques," Edited by Patrick Groff, Elementary English, XLI (May, 1964), pp. 535-6 & 541.

noun. When phrases or clauses are inserted within one another, two levels of analysis would certainly be inadequate to describe the resultant complexity.

Consider, for example, the following sentence written by a third-grade girl: "It was the head of Aroma, the main character in my story." The sentence consists of a subject, linking verb, and noun complement; and the complement consists of the noun "head" preceded by the determiner "the" and followed by a prepositional phrase which includes additional modifiers. The constituents of sentence-level slots are revealed by a second level of analysis. However, the second level of analysis does not reveal the sub-constituents which appear within any single slot. The representation of the system of analysis given below indicates how complex structures can be described by a multi-level system of analysis. The sentence about Aroma contains five levels:

It was the head of Aroma, the main character in my story.

Subj. Link. PREDICATE COMPLEMENT — I
Verb
Det. Head
Noun PREPOSITIONAL PHRASE — II
Prep. Head
Noun APPOSITIVE — III
Det. Adj. Head
Noun PREP. PHRASE — IV
Prep. Poss. Head — V
Pron. Noun

The system of analysis used in the instrument for the Nebraska Study is generally eclectic, and borrows from the work of various modern linguists and their several approaches to syntax- structural, tagmemic, and trans-formational-generative; it does not claim to advance syntactic theory toward a more refined description of linguistic system, but rather claims a certain workability. It is essentially an immediate constituent system of analysis,

perhaps most like the system elaborated by Robert Longacre[3] and other tagmemicists. Use has been made of transformational-generative grammar where it seemed most helpful--to show relationships between syntactic structures which are essentially identical in meaning but different in syntax, such as active-passive structures and statement-question structures.

In each of the three years of the study, different techniques were used in hopes of gaining different kinds of information about the syntax of children's writing. During the first year of the study, 1964-65, 20% of all sentences were randomly selected from 1000 compositions of children in grades 2-6 in traditional English programs, 200 at each grade; and the sentences were then analyzed with major emphasis placed on getting an over-all picture of what children at each grade level produce.

During the second year of the study, 1965-66, major emphasis was placed on discovering and evaluating the differences in written syntax between children in traditional English programs and those in classrooms where Nebraska Project English materials have been used. Instead of using a random selection of sentences from all compositions, we decided to use an equal sample from each child, specifically the first five sentences[4] of each composition. In addition a 500 sentence sample from the writings of major

---

[3] Robert Longacre, "String Constituent Analysis," Language, XXXVI (January-March 1960) pp. 63-88.

[4] In this study, the word "sentence" refers to any syntactically independent unit, and is not dependent on the child's punctuation. The concept is the same as Kellogg Hunt's "T-unit" carefully described in Differences in Grammatical Structures Written at Three Grade Levels, U.S.O.E., 1964.

modern American writers of prose fiction was used as a "touchstone" or standard of excellence against which the various children's groups could be compared. With such a model, it becomes possible to say that the writing of one group was syntactically superior to that of another.

For the third segment of the study, done during the 1966-67 school year, three groups of thirty students at grade 3 and three similar groups at grade 6 were selected for further study of the differences between control and experimental groups; control groups being those in traditional English programs, and experimental groups those using Project English materials produced by the Nebraska Curriculum Development Center. One group of thirty at each grade level was composed of children who were in traditional English programs; a second group was in classrooms where some use was made of Project English materials; the third group at each grade level had a more intensive exposure to Nebraska English Curriculum Center materials, and an especially heavy emphasis was placed on language and composition activities. Students in the three groups at each grade were matched by sex, I Q scores, and socio-economic background so that differences between them could be assumed to be a result of the different programs. From each child, two compositions were collected, one in the fall, and another in the spring. Every sentence written in the two compositions was analyzed. These compositions provided information about the amount of growth in syntax which each group attained during a specific period, as well as the level of attainment they had reached both at the beginning and the end.

This then is the Nebraska Syntax Study. Over a period of three years, I closely analyzed 13,000 sentences from 2000 compositions using a specially developed instrument for linguistic analysis. We looked for differences in syntax--differences between adult writers and children, differences between children at different grade levels, differences between boys and girls,

differences between children of different I Q levels, and differences between children in Nebraska Project English classrooms and those in traditional classrooms.

What then did we find?

We found as everyone has suspected that professional writers write differently from children. Of sentence patterns, professional writers use fewer 1 2 4 patterns (subject-verb-object) and more 1 2's (subject-verb). Professionals also use fewer questions and fewer expletive sentences beginning with "there." They use considerably more sentences with compound predicates and more 1 2B 5A (subject-linking verb-predicate adjective) sentences. However, the differences in the use of various sentence pattern options is really quite small. As Ruth Strickland and others have learned, sentence patterns reveal very little about syntax. It is what the writer does within the pattern and within the slots that is most significant, not the pattern itself.

We found a great difference between adults and children in frequency of use of adverbial elements, especially those at the end of the clause. Professional writers use about twice as many phrases and subordinate clauses following verbs and complements as children do. Surprisingly, the use of adverbial elements at the beginning of the clause is slightly higher for children than adults. Generally only one-fourth of professional sentences have any structure preceding the subject; children more often have them, especially elements like "Once upon a time" or "Then." The structure of the noun slot (subject or object) for the children and professional writers is quite similar in frequency of use of various options. However, one type of structure is relatively little used by children and often by professional writers. It is the noun phrase, subject or object, in which a modifying phrase or clause follows the head noun. Examples are the prep. phrase, verbal phrase,

or adj. clause following the noun they modify. We also noticed that professional writers use about 20 times as many participial phrases as do children.

We also found that there is a considerable, if gradual, change in writing as children progress through the elementary grades. In grade 2, children write an average of 7 1/2 sentences in 40 minutes; those in 6th grade in the same amount of time wrote 22 1/2, exactly three times as many. In general, most changes are in the direction of the professional model: sixth-grade children, obviously, write much more like adults than second-grade children do. There are, however, interesting differences in the degree to which they approach that model. By sixth grade, the frequency of use of the various sentence pattern options is closer to those of professional writers than to those of third-grade children. Younger children tend to over-use a few patterns, especially the 1 2 4, and the expletive; however these do decline in the intermediate grades as the 1 2 sentence and the compound predicate patterns increase. We found no change in the use of the pattern with linking verb (1 2B 5 and 1 2B 5A) which Strickland claims is an index of maturity in the spoken language. It certainly is not in children's written language.

There is a steady increase from grade to grade in the use of adverbial structures, especially phrases and clauses. There is a regular increase in the use of sentences with adverbial structures in the middle or at the end, but there is a decrease in the use of sentences with no adverbials or adverbials at the beginning.

Children at all grades use all patterns and all structures. Because we had only a few sentences from each child, we do not know if each child at each grade has mastered all structures.

We found that girls wrote more than boys did and in general used the more desirable syntactic structures more often. The syntactic superiority

of the girls is greater at the higher grades. The most statistically significant differences between boys and girls are in the use of prepositional phrases and in the use of sentences having four or more levels of complexity.

We found that there is a statistically significant difference between high, middle, and low I Q groups in their use of a variety of syntactic structures. At grade 3 the high IQ group used 10 out of 11 adverbial elements significantly more often than the low IQ group. At grade six, the high IQ group used 9 of 11 adverbial structures significantly more than the low group. At grade 3, the low IQ children use few subordinate clauses; many don't use them at all. Perhaps at grade 3, there are still children who have not learned the concept of subordination. By grade six, however, there is little difference between the high and low IQ groups in the use of subordinate clauses.

We found the very interesting, and very surprising fact that there is a negative correlation between performance and growth over a four-month period. And this was true of all grades and all IQ levels. What this means is that the children who performed best on our first composition improved less than those who had performed less well. Apparently, once a certain level of proficiency was attained, growth seemed to continue at a considerably reduced rate. There seem to be limits beyond which a child's writing can improve only very slowly.

Finally, we found that in classrooms where Nebraska Project English materials including the best in children's literature have been used children consistently write syntactically more like professional writers than do control students of the same ability at the same grade.

Project English children use more variety in choice of sentence patterns and avoid the heavy dependence on the subject-verb-object pattern of their control counterparts.

Nebraska Project English children use more adverbial phrases and clauses, especially those at the end of the sentence. As we have seen previously, such structures are characteristic of good adult writers.

Children in classrooms using the Nebraska Project English materials also exhibit greater complexity in their noun slots than do children in traditional classrooms. They use clauses and verbal phrases as subject and object more often; and they also use modifying phrases and clauses within the noun phrase more often.

Experimental children consistently write sentences which are more complex than do control children. In <u>every</u> group at <u>every</u> grade, there were no exceptions; Project English groups used higher levels of structure more than other groups. Their syntax was more elaborate, more complex, and more like the model of the adult writer.

The Nebraska Syntax Study, in brief, reveals that as children grow older they move steadily toward the syntactic model of the adult writer, and that in Project English classrooms, where children are frequently exposed to the best in children's literature, progress toward the adult model is more rapid than in classrooms with traditional language programs.